## Snowflake Bulk

Last Modified on 08/11/2021 6:38 am EDT

For the Snowflake connector, SAP Open Connectors provides native bulk as an option to upload / download large number of resources, such as contacts, into a cloud service all at once. The Bulk APIs require the name of the object identified within the cloud service and a .csv or a .json file with populated data included in each request. SAP Open Connectors provides discovery services to get a list of available objects.

**1)** Note: To perform a Bulk upload / download, you will need to pass the AWS Bucket Name, AWS Access Key ID and AWS Secret Access Key as mandatory credentials while provisioning an instance. If you leave any of the above mentioned fields empty, it throws an error as shown in the screenshot below.

```
Response body

{
    "metadata": "{\"format\":\"json\"}",
    "recordsFailedcount": 0,
    "canonical_object": "EMPLOYEE",
    "job_direction": "UPLOAD",
    "hulk_start_time". "2019-12_19T18.59.57 5282"

"error": "Required Parameters are Missing. Please Edit the instance Configuration.",
    "instanceId": 146,
    "object_name": "EMPLOYEE",
    "id": "114",
    "bulk_finish_time": "2019-12-19T18:59:57.627Z",
    "fileFormat": "json",
    "status": "ABORTED"
```

If you configured the Callback Notification Signature Key ( event.notification.signature.key ) when you authenticated a connector instance, the bulk APIs will use the signature key to provide hash verification in the header of bulk jobs. For more information, see Hash Verification.